CLAIMS

1. A material for a dewatering element in the wet end of a paper-making machine, the material comprising an elastomeric polymer matrix, and a filler added to said matrix at a level of 10 to 50 percent by weight, wherein the material has a hardness according to Shore A between 60 and 85.

2. A material as claimed in claim 1, wherein the polymer matrix comprises a material selected from polyurethane, polyurea, styrene-butadiene rubber, ethylene propylene diene monomer (EPDM), nitrile rubber, natural or synthetic rubbers, polychloroprene, polyacrylates, fluorine-containing elastomers, thermoplastic elastomers and polysiloxanes.

3. A material as claimed in claim 2, wherein the polymer matrix comprises polyurethane.

4. A material as claimed in claim 1, wherein the filler is a low hardness filler.

5. A material as claimed in claim 1, wherein the filler is a solid lubricant.

6. A material as claimed in claim 1, wherein the filler is selected from poly(tetrafluoroethylene), talcum, powders of ultra high molecular weight polyethylene (UHMWPE), clay (kaolin), calcium carbonate, boron nitride, molybdenum sulfide, calcium fluoride, titanium dioxide, titanium carbide, glass beads and ceramic beads.

7. A material as claimed in claim 4, wherein the filler is a low hardness filler selected from poly(tetrafluoroethylene) and talcum.

8. A material as claimed in any one of the preceding claims, wherein the filler is added at a level of 10 to 40 percent by weight, preferably 15 to 30 percent by weight.

9. A material as claimed in any one of the preceding claims, wherein the material has a hardness according to Shore A between 70 and 80.

10. A dewatering element for the wet end of a paper-making machine, said dewatering element having a sliding surface for contacting a forming screen, wherein the sliding surface of the dewatering element comprises a material according to any one of the claims 1-9.

11. Use of a material according to any one of claims 1-9 for the preparation of a dewatering element for a paper-making machine.

12. A method for producing a material for the wet end of a paper-making machine, comprising the steps of:

preparing a polymer matrix composition having a nominal hardness according to Shore A of 60 to 80;

adding to said polymer matrix composition a filler at a level of 10 to 50 percent by weight; and

curing said composition to obtain a material having a hardness according to Shore A of 60 to 85.

13. A method according to claim 12, wherein the filler is added at a level of 10 to 40 percent by weight, preferably 15 to 30 percent by weight.

14. A method according to claim 12 or 13, wherein the filler added to said polymer matrix composition is a low hardness filler having a hardness on Moh's scale between 1 and 5.

15. A method according to claim 14, wherein the filler added is talc or poly(tetrafluoroethylene).